AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGES 1 of 2

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
6	28-Feb-2003		

6. ISSUED BY	CODE	7. ADMINISTERED BY *(If other than item 6)*	CODE
US Army Corps of Engineers, Kansas City District 760 Federal Building, 601 East 12th Street Kansas City, Missouri 64106-2896			

8. NAME AND ADDRESS OF CONTRACTOR *(No.,street, county, State and ZIP Code)*	(x)	9a. AMENDMENT OF SOLICITATION NO.
	X	DACA41-02-B-0003
		9B. DATED *(SEE ITEM 11)* 1/16/2003
		10A. MODIFICATION OF CONTRACT/ORDER NO.
		10B. DATED *(SEE ITEM 13)*
CODE FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

[X] The above number solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers [ ] is extended, [X] is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitaiton or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegraph which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFEF If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA *(If required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS,
IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(x)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBER CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc.)* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF:
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor [ ] is not, [ ] is required to sign this document and return copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

Barracks - 1st BDE, FY03 - PN 10538, Fort Riley, Kansas

The Solicitation is amended in accordance with the attached pages.
Bid Opening remains at 2:00 pm, local time, 12 March 2003, Rm. 748 Federal Bldg.,
601 E. 12th St., KCMO 64106-2896.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
15B. CONTRACTOR/OFFEROR *(Signature of person authorized to sign)*	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY *(Signature of Contracting Officer)*	16C. DATE SIGNED

The SOLICITATION is amended as follows:

CLARIFICATION: In Amendment 0002, dated 12 February 2003, SECTION 01130 DELIVERIES OR PERFORMANCE FOR TROOPER-APENNINES TRAFFIC ROUNDABOUT and TROOPER-APENNINES TRAFFIC ROUNDABOUT (EXTENSION OF DESIGN) were both replaced in their entirety.

1. SPECIFICATIONS:

~~Revised Sections~~: The following sections have been deleted and replaced with revised sections of the same numbers. Copies of the revised sections are attached.

Bidding Schedule
09250
10260

2. DRAWINGS:

~~Revised Drawing~~: Sheet Number M10.2, Volume 1, is deleted and replaced with a revised drawing of the same number. A copy of the revised drawing is attached.

3. Bidders are required to acknowledge receipt of this amendment on the Bidding Form, in the space provided, or by separate letter or telegram prior to opening of bids. Failure to acknowledge all amendments may cause rejection of the bid.

4. Bids will be received until 2:00 p.m., local time, 12 March 2003, in Room 748 Federal Building, 601 E. 12th Street, Kansas City, Missouri 64106-2896. and at that time publicly opened.

SECTION 00010 - SOLICITATION CONTRACT FORM

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001		1	Lump Sum	_____	_____
	Barracks				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002		1	Lump Sum	_____	_____
	Soldier Community Building				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003		1	Lump Sum	_____	_____
	2 Company Operation Facility Buidings				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004		1	Lump Sum	_____	_____
	4 Company Operation Facility Buildings				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005		1	Lump Sum	_____	_____
	Battalion Headquarters				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006		1	Lump Sum	_____	_____
	Site Work To include all work outside 1.8 meters of the barracks, Soldier Community Building, 2 Company Operation Facility, 4 Company Operation Facility, and Battalion Headquarters.				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007		1	Lump Sum	_____	_____
	Demolition Buildings 7044,7046, 7047, and 7048 to include removal of paving, sidewalks, utilities, etc as shown on drawings.				

TOTAL BASE SCHEDULE _____

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008					
	NOT USED				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0009	NOT USED				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0010		1	Lump Sum	_____	_____
OPTION	New Barracks Parking Lot Pave with Portland Cement Concrete and base course as shown on Drawings as option 1. **NOTE**: The lump sum amount is the difference between the cost of asphalt and concrete.				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0011		1	Lump Sum	_____	_____
OPTION	Existing Asphalt Parking Lot located west of 2-COF site - Remove existing asphalt pavement and replace with new Portland Cement Concrete and Base as shown on drawings as option 2.				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0012		1	Lump Sum	_____	_____
OPTION	New Battalion Headquarters Parking Lot Pave with Portland Cement Concrete and base course as shown on Drawings as option 3. **NOTE**: The lump sum amount is the difference between the cost of asphalt and concrete.				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0013		1	Lump Sum	_____	_____
OPTION	Existing Asphalt Parking Lot located west of 4-COF site - Remove existing asphalt pavement and replace with new Portland Cement Concrete and base course as shown on drawings as option 4.				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0014		1	Lump Sum	_____	_____
OPTION	Demolish Building #7230 to include removal of paving, sidewalks, utilities, etc. as shown on drawings as option 5.				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0015		1	Lump Sum	_____	_____
OPTION	Demolish Buildings #7028 and #7031 to include removal of sidewalks and utilities within 1.8 meters of the buildings as shown on drawings as option 6.				

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0016		1	Lump Sum	_____	_____
OPTION	Extension of Design Submittal for Trooper-Apennienes Traffic Roundabout as shown on drawings as option 7.				
	Design	1 lump sum _____			
	Construction	1 lump sum _____			

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0017		1	Lump Sum	_____	_____
OPTION	Pedestrian Underpasses Add Pedistrian Underpasses for Trooper-Apennines Roundabout as described in scope of work and drawings.				
	Design	1 lump sum _____			
	Construction	1 lump sum _____			

CLIN 0018 is added as follows:

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	**NTE AMOUNT**
0018		1	Lump Sum	$1,305,050.00	$1,305,050.00
	Communications Center Bldg 6421 Construct a new communications center, building 6421, adjacent to the existing communications center, building 6420, at Custer Hill, Fort Riley. The building is approximately 3600 SF (net area) and consists of a switchgear room, operators area, and miscellaneous ancillary spaces (battery room, break room, etc.). Site work and utilities will be included. New parking will be provided. The switchgear will be provided and installed by the government after construction is completed. Demolition of the existing building 6420 and parking areas may be included. This line item will be negotiated after award.				
				NET AMT	$1,305,050.00

FOB: Destination

TOTAL OPTIONS _____

TOTAL BASE SCHEDULE AND OPTIONS _____

SECTION 09250

GYPSUM BOARD
11/01

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A108.11	(1992) Interior Installation of Cementitious Backer Units
ANSI A118.9	(1992) Cementitious Backer Units

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 36/C 36M	(1999) Gypsum Wallboard
ASTM C 79/C 79M	(2001) Standard Specification for Treated Core and Nontreated Core Gypsum Sheathing Board
ASTM C 442/C 442M	(1999; Rev. A) Gypsum Backing Board and Coreboard
ASTM C 475	(1994) Joint Compound and Joint Tape for Finishing Gypsum Board
ASTM C 514	(1996) Nails for the Application of Gypsum Board
ASTM C 630/C 630M	(2001) Water-Resistant Gypsum Backing Board
ASTM C 840	(2001) Application and Finishing of Gypsum Board
ASTM C 954	(2000) Steel Drill Screws for the Application of Gypsum Board or Metal Plaster Bases to Steel Studs from 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness
ASTM C 1002	(2000) Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases
ASTM C 1047	(1999) Accessories for Gypsum Wallboard

	and Gypsum Veneer Base
ASTM C 1177/C 1177M	(1999) Standard Specification for Glass Mat Gypsum Substrate for use as Sheathing
ASTM C 1178/C 1178M	(1999) Glass Mat Water-Resistant Gypsum Backing Board
ASTM C 1396/C 1396M	(2000) Standard Specification for Gypsum Board
ASTM D 226	(1997) Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing
ASTM D 412	(1998) Standard Test Methods for Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers-Tension
ASTM D 624	(2000) Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
ASTM D 1037	(1999) Standard Test Methods for Evaluating Properties of Wood-Base Fiber and Particle Panel Materials
ASTM D 1149	(1999) Standard Test Method for Rubber Deterioration-Surface Ozone Cracking in a Chamber
ASTM D 5420	(1998) Standard Test Method for Impact Resistance of Flat, Rigid Plastic Specimen by Means of a Striker Impacted by a Falling Weight (Gardner Impact)
ASTM E 84	(2001) Surface Burning Characteristics of Building Materials
ASTM E 695	(1997) Standard Method for Measure Relative Resistance of Wall, Floor and Roof Construction to Impact Loads

GYPSUM ASSOCIATION (GA)

GA 214	(1996) Recommended Levels of Gypsum Board Finish
GA 216	(2000) Application and Finishing of Gypsum Board
GA 253	(1999) Application of Gypsum Sheathing

GA 600 (2000) Fire Resistance and Sound Control Design Manual

UNDERWRITERS LABORATORIES (UL)

UL Fire Resist Dir (2000) Fire Resistance Directory

1.2 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures."

SD-03 Product Data; G, RE

Cementitious backer units

Glass Mat Water-Resistant Gypsum Tile Backing Board

Water-Resistant Gypsum Backing Board

Glass Mat Covered or Reinforced Gypsum Sheathing

Glass Mat Covered or Reinforced Gypsum Sheathing Sealant

Impact Resistant Gypsum Board

Accessories

Submit for each type of gypsum board and for cementitious backer units.

SD-04 Samples

Predecorated gypsum board; G, RE

Submit for each color and pattern of predecorated gypsum board. Where colors are not indicated, submit color selection samples of not less than eight of the manufacturer's standard colors.

SD-07 Certificates

Asbestos Free Materials; G, RE

Certify that gypsum board types, gypsum backing board types, cementitious backer units, and joint treating materials do not contain asbestos.

1.3 DELIVERY, STORAGE, AND HANDLING

1.3.1 Delivery

Deliver materials in the original packages, containers, or bundles with each bearing the brand name, applicable standard designation, and name of manufacturer, or supplier.

1.3.2 Storage

Keep materials dry by storing inside a sheltered building. Where necessary to store gypsum board and cementitious backer units outside, store off the ground, properly supported on a level platform, and protected from direct exposure to rain, snow, sunlight, and other extreme weather conditions. Provide adequate ventilation to prevent condensation.

1.3.3 Handling

Neatly stack gypsum board and cementitious backer units flat to prevent sagging or damage to the edges, ends, and surfaces.

1.4 ENVIRONMENTAL CONDITIONS

1.4.1 Temperature

Maintain a uniform temperature of not less than 10 degrees C in the structure for at least 48 hours prior to, during, and following the application of gypsum board, cementitious backer units, and joint treatment materials, or the bonding of adhesives.

1.4.2 Exposure to Weather

Protect gypsum board and cementitious backer unit products from direct exposure to rain, snow, sunlight, and other extreme weather conditions.

1.5 QUALIFICATIONS

Manufacturer shall specialize in manufacturing the types of material specified and shall have a minimum of 5 years of documented successful experience. Installer shall specialize in the type of gypsum board work required and shall have a minimum of 3 years of documented successful experience.

PART 2 PRODUCTS

2.1 MATERIALS

Conform to specifications, standards and requirements specified herein. Provide gypsum board types, gypsum backing board types, cementitious backing units, and joint treating materials manufactured from asbestos free materials only.

2.1.1 Gypsum Board

ASTM C 36/C 36M and ASTM C 1396/C 1396M.

2.1.1.1 Regular

1200 mm wide, 15.9 mm thick, tapered edges.

2.1.1.2 Type X (Special Fire-Resistant)

1200 mm wide, 12.7 and 15.9 mm thick, tapered edges.

2.1.2 Gypsum Backing Board

ASTM C 442/C 442M, gypsum backing board shall be used as a base in a multilayer system.

2.1.2.1 Regular

1200 mm wide, 15.9 mm thick, square edges.

2.1.2.2 Type X (Special Fire-Resistant)

1200 mm wide, 12.7 mm thick, square edges.

2.1.3 Regular Water-Resistant Gypsum Backing Board

ASTM C 630/C 630M

2.1.3.1 Regular

1200 mm wide, 12.7 mm thick, tapered edges.

2.1.4 Glass Mat Water-Resistant Gypsum Tile Backing Board

ASTM C 1178/C 1178M

2.1.4.1 Regular

1200 mm wide, 15.9 mm thick, square edges.

2.1.5 DELETED

2.1.5.1 DELETED

2.1.6 Impact Resistant Gypsum Board

1200 mm wide, 15.9 mm thick, tapered edges.
Reinforced gypsum panel with imbedded fiber mesh or lexan backing testing in accordance with the following tests. Provide fasteners that meet manufacturer requirements and specifications stated within this section. Impact resistant gypsum board, when tested in accordance with ASTM E 84, shall have a flame spread rating of 15 for face and 50 or less for back or less and a smoke developed rating of 50 or less.

2.1.6.1 Structural Failure Test

ASTM E 695 or ASTM D 2394 for structural failure (drop penetration). ASTM E 695using a 27.2 kg sand filled leather bag, resisting no less than 407 N-m cumulative impact energy before failure or ASTM D 2394 using 139.7 mm hemispherical projectile resisting no less than 357 N-m before failure. Test specimen stud spacing shall be 406 mm or greater on center.

2.1.6.2 Indentation Test

ASTM D 5420 or ASTM D 1037 for indentation resistance. ASTM D 5420 using a .907 kg weight with a 16 mm hemispherical impacting head dropped once 915 mm creating not more than 3.5 mm indentation or ASTM D 1037 using no less than 213 kg weight applied to the 11.13 mm diameter ball to create not more than a 0.5 mm indentation depth.

2.1.7 Abuse-Resistant Gypsum Board

A gypsum core wall panel with additives to enhance surface indentation resistance, and impact resistance of the core and surfaced with abrasion resistant paper on front and long edges with heavy liner paper bonded to the back side; and complying with ASTM C 36/C 1396, Type X (Hi-Abuse Brand Wallboard).1200 mm wide, 15.9 mm thick, tapered edges. Provide fasteners that meet manufacturer requirements.

2.1.7.1 Impact Resistance

No failure after 100 impacts when tested in accordance with ASTM E 695, modified.

2.1.7.2 Indentation Resistance

Not less than the following loads to produce the indicated depth of surface indentation when tested in accordance with ASTM D 1037, modified:

a. 0.100 in.: 232 lbs.
b. 0.200 in.: 469 lbs.

2.1.7.3 3M Surface Abrasion Resistance

Not greater than the following depths when tested using the indicated number of cycles in accordance with ASTM D 4977, modified:

a. 50: 0.000 in.
b. 100: 0.000 in.
c. 150: 0.001 in.
c. 200: 0.001 in.
d. 250: 0.001 in.

2.1.7.4 Taber Surface Abrasion Resistance

Not greater than the following depths when tested using the indicated number of cycles in accordance with ASTM D 4060, modified:

a. 25: 0.002 in.
a. 50: 0.004 in.
b. 75: 0.007 in.
c. 100: 0.009 in.
d. 125: 0.010 in.

2.1.7.5 Impact/Penetration Resistance Rating

Not less than 36 ft.-lbs. When tested in accordance with ASTM D 2394, modified.

2.1.8 Cementitious Backer Units

ANSI A118.9.

2.1.9 Joint Treatment Materials

ASTM C 475.

2.1.9.1 Embedding Compound

Specifically formulated and manufactured for use in embedding tape at gypsum board joints and compatible with tape, substrate and fasteners.

2.1.9.2 Finishing or Topping Compound

Specifically formulated and manufactured for use as a finishing compound.

2.1.9.3 All-Purpose Compound

Specifically formulated and manufactured to serve as both a taping and a finishing compound and compatible with tape, substrate and fasteners.

2.1.9.4 Setting or Hardening Type Compound

Specifically formulated and manufactured for use with fiber glass mesh tape.

2.1.9.5 Joint Tape

Cross-laminated, tapered edge, reinforced paper, or fiber glass mesh tape recommended by the manufacturer.

2.1.10 Fasteners

2.1.10.1 Nails

ASTM C 514.

2.1.10.2 Screws

ASTM C 1002, Type "G", Type "S" or Type "W" steel drill screws for fastening gypsum board to gypsum board, wood framing members and steel framing members less than 0.84 mm thick. ASTM C 954 steel drill screws for fastening gypsum board to steel framing members 0.84 to 2.84 mm thick. Provide cementitious backer unit screws with a polymer coating.

2.1.10.3 Staples

1.5 mm thick flattened galvanized wire staples with 11.1 mm wide crown outside measurement and divergent point for base ply of two-ply gypsum board application. Use as follows:

Length of Legs (mm)	Thickness of Gypsum Board (mm)
28.6	12.7

Length of Legs (mm)	Thickness of Gypsum Board (mm)
31.8	15.9

2.1.11 Adhesives

Do not use adhesive containing benzene, carbon tetrachloride, or trichloroethylene.

2.1.11.1 Adhesive for Fastening Gypsum Board to Metal Framing

Type recommended by gypsum board manufacturer.

2.1.11.2 Adhesive for Laminating

For laminating two-ply gypsum board systems , provide adhesive recommended by gypsum board manufacturer.

2.1.12 NON-LOADBEARING STUD WALLS

2.1.12.1 Studs

Studs for non-loadbearing walls shall conform to ASTM C 645. Studs shall be C-shaped, roll formed steel with minimum uncoated design thickness of 20 Gage made from G40 hot-dip galvanized coated sheet.

2.1.12.2 Runner Tracks

Floor and ceiling runner tracks shall conform to ASTM C 645. Tracks shall be prefabricated, U-shaped with minimum 25 mm flanges, unpunched web, thickness to match studs, made from G40 hot-dip galvanized coated sheet.

2.1.13 SUSPENDED CEILING FRAMING

Suspended ceiling framing system shall have the capability to support the finished ceiling, light fixtures, air diffusers, and accessories, as shown. The suspension system shall have a maximum deflection of L/240. Carrying channels shall be formed from minimum 1.40 mm thick cold-rolled steel, 38 x 19 mm. Furring members shall be formed from cold-rolled steel, 22 x 65 mm. Carrying channels and furring members shall be made from hot-dip galvanized coated sheet.

2.1.13.1 CEILING JOISTS

Joists shall conform to ASTM C 955. Joists shall be prefabricated, C-shaped with minimum 32mm (1 1/4") high flanges, punched web for utility access, minimum .91mm thick (20 gauge) steel, G60 hot-dip galvanized after fabrication.

2.1.13.2 Runner Tracks

Joist runner tracks shall conform to ASTM C 955. Runner shall be prefabricated, C-shaped with minimum 22 mm flanges, unpunched web, thickness (gauge) to match joists, G60 hot-dip galvanized after fabrication.

2.1.13.3 Bridging

Bridging shall conform to ASTM C 955. Bridging shall be minimum 19mm high by 19mm deep cold-rolled steel channel, 1.519 mm thick (16 gauge). Bridging shall be attached to each ceiling joist with a screw.

2.1.14 Accessories

ASTM C 1047. Fabricate from corrosion protected steel or plastic designed for intended use. Accessories manufactured with paper flanges are not acceptable. Flanges shall be free of dirt, grease, and other materials that may adversely affect bond of joint treatment. Provide prefinished or job decorated materials.

2.1.15 DELETED

2.1.16 Water

Clean, fresh, and potable.

2.1.17 PLASTIC ACCESS PANELS

Doors shall be flush type. Frames for access doors shall be fabricated of one piece outside flange with 3/4" deep mounting frame which can be reversed. Access doors shall be a minimum of 305 by 305 mm and of not lighter than 3.175 mm (1/8 inch)high impact styrene plastic with U.V. stabilizers. The doors shall be completely removable from the frame and shall fit tightly with snap latches. Access doors shall be flushed to frame and provided with rounded safety corners. Finish shall be exposed white with textured exposed surfaces. Access panels shall be Acudor PA-3000 or aprroved equal.

PART 3 EXECUTION

3.1 EXAMINATION

3.1.1 Framing and Furring

Verify that framing and furring are securely attached and of sizes and spacing to provide a suitable substrate to receive gypsum board and cementitious backer units. Verify that all blocking, headers and supports are in place to support plumbing fixtures and to receive soap dishes, grab bars, towel racks, and similar items. Do not proceed with work until framing and furring are acceptable for application of gypsum board and cementitious backer units.

3.1.2 Gypsum Board and Framing

Verify that surfaces of gypsum board and framing to be bonded with an adhesive are free of dust, dirt, grease, and any other foreign matter. Do not proceed with work until surfaces are acceptable for application of gypsum board with adhesive.

3.1.3 Concrete Walls

Verify that surfaces of concrete walls to receive gypsum board applied with adhesive are dry, free of dust, oil, form release agents, protrusions and voids, and any other foreign matter. Do not proceed with work until surfaces are acceptable for application of gypsum board with adhesive.

3.2 APPLICATION OF GYPSUM BOARD

Apply gypsum board to framing and furring members in accordance with ASTM C 840 or GA 216 and the requirements specified herein. Apply gypsum board with separate panels in moderate contact; do not force in place. Stagger end joints of adjoining panels. Neatly fit abutting end and edge joints. Use gypsum board of maximum practical length. Cut out gypsum board as required to make neat close joints around openings. In vertical application of gypsum board, provide panels in lengths required to reach full height of vertical surfaces in one continuous piece. Surfaces of gypsum board and substrate members may be bonded together with an adhesive, except where prohibited by fire rating(s). Treat edges of cutouts for plumbing pipes, screwheads, and joints with water-resistant compound as recommended by the gypsum board manufacturer. Provide type of gypsum board for use in each system specified herein as indicated.

3.2.1 Adhesive Application to Concrete Walls

Apply in accordance with ASTM C 840, System VI or GA 216.

3.2.2 Application of Gypsum Board to Steel Framing and Furring

Apply in accordance with ASTM C 840, System VIII or GA 216.

3.2.3 Arches and Bending Radii

Apply gypsum board in accordance with ASTM C 840, System IX or GA 216.

3.2.4 Gypsum Board for Wall Tile or Tile Base Applied with Adhesive

Apply glass matt water-resistant gypsum tile backing board or water-resistant gypsum backing board in accordance with ASTM C 840, System X or GA 216 as indicated in Room Finish Schedules on the contract drawings.

3.2.5 DELETED

3.2.6 DELETED

3.2.7 Floating Interior Angles

Locate the attachment fasteners adjacent to ceiling and wall intersections in accordance with ASTM C 840, System XII or GA 216, for single-ply and two-ply applications of gypsum board to wood framing.

3.2.8 Control Joints

Install expansion and contraction joints in ceilings and walls in

accordance with ASTM C 840, System XIII or GA 216, unless indicated otherwise. Control joints between studs in fire-rated construction shall be filled with firesafing insulation to match the fire-rating of construction.

3.2.9 Application of Impact Resistant and Abuse-Resistant Gypsum Board

Apply in accordance with applicable system of ASTM C 840 as specified or GA 216. Follow manufacturers written instructions on how to cut, drill and attach board.

3.3 APPLICATION OF CEMENTITIOUS BACKER UNITS

3.3.1 Application

In wet areas (tubs, shower enclosures, saunas, steam rooms, gang shower rooms), apply cementitious backer units in accordance with ANSI A108.11. A 7.6 kg asphalt impregnated, continuous felt paper membrane shall be placed behind cementitious backer units, between backer units and studs or base layer of gypsum board. Membrane shall be placed with a minimum 150 mm overlap of sheets laid shingle style.

3.3.2 Joint Treatment

ANSI A108.11.

3.4 FINISHING OF GYPSUM BOARD

Tape and finish gypsum board in accordance with ASTM C 840, GA 214 and GA 216. Plenum areas above ceilings shall be finished to Level 1 in accordance with GA 214. Water resistant gypsum backing board, ASTM C 630/C 630M, to receive ceramic tile shall be finished to Level 2 in accordance with GA 214. Walls and ceilings to receive a heavy-grade wall covering or heave textured finish before painting shall be finished to Level 3 in accordance with GA 214. Walls and ceilings without critical lighting to receive flat paints, light textures, or wall coverings shall be finished to Level 4 in accordance with GA 214. Unless otherwise specified, all gypsum board walls, partitions and ceilings shall be finished to Level 5 in accordance with GA 214. Provide joint, fastener depression, and corner treatment. Do not use fiber glass mesh tape with conventional drying type joint compounds; use setting or hardening type compounds only. Provide treatment for water-resistant gypsum board as recommended by the gypsum board manufacturer.

3.4.1 Uniform Surface

Wherever gypsum board is to receive eggshell, semigloss or gloss paint finish, or where severe, up or down lighting conditions occur, finish gypsum wall surface in accordance to GA 214 Level 5. In accordance with GA 214 Level 5, apply a thin skim coat of joint compound to the entire gypsum board surface, after the two-coat joint and fastener treatment is complete and dry.

3.5 SEALING

Seal openings around pipes, fixtures, and other items projecting through gypsum board and cementitious backer units as specified in Section 07900a "Joint Sealing." Apply material with exposed surface flush with gypsum board or cementitious backer units.

3.5.1 Sealing for Glass Mat or Reinforced Gypsum Board Sheathing

Apply silicone sealant in a 9.5 mm bead to all joints and trowel flat. Apply enough of the same sealant to all fasteners penetrating through the glass mat gypsum board surface to completely cover the penetration when troweled flat. Construction and materials shall not be placed behind sheathing until a visual inspection of sealed joints during daylight hours has been completed by Contracting Officer.

3.6 FIRE-RESISTANT ASSEMBLIES

Wherever fire-rated construction is indicated, provide materials and application methods, including types and spacing of fasteners, wall and ceiling framing in accordance with the specifications contained in UL Fire Resist Dir for the Design Number(s) indicated, or GA 600 for the File Number(s) indicated. Joints of fire-rated gypsum board enclosures shall be closed and sealed in accordance with UL test requirements or GA requirements. Penetrations through rated partitions and ceilings shall be sealed tight in accordance with tested systems. Fire ratings shall be as indicated.

3.7 SUSPENDED CEILING FRAMING

Steel framing shall be installed in accordance with ASTM C 754. Members shall be in alignment with spacings not to exceed the maximum spacings indicated on the drawings. Runners shall be aligned accurately and securely fastened.

3.7.1 Hangers

Hangers shall be spaced not more than 1200 mm along runner channels and 900 mm in the other direction or 1050 mm in both directions unless otherwise indicated. Locations of hanger wires shall be coordinated with other work. Hangers at ends of runner channels shall be located not more than 150 mm from wall. Hanger wire shall be looped around bottom chord of open-web steel joists, or secured to structural elements with suitable fasteners. Sags or twists which develop in the suspended system shall be adjusted. Damaged or faulty parts shall be replaced.

3.7.2 Main Runners

Main runner channels shall be installed in accordance with ASTM C 754. Hanger wires shall be double strand saddle-tied to runner channels and the ends of hanger wire shall be twisted three times around itself. Main runners shall be located to within 150 mm of the paralleling wall to support the ends of cross furring. Main runners shall not come in contact with abutting masonry or concrete walls. Where main runners are spliced, ends shall be overlapped 300 mm with flanges of channels interlocked, and

shall be securely tied at each end of splice with wire looped twice around the channels.

3.7.3 Furring Channels

Furring channels shall be spaced in accordance with ASTM C 754. Furring channels shall be secured to the runner channels and to structural supports at each crossing with tie wire, hairpin clips, or equivalent fastenings. Furring channels shall be located within 50 mm of parallel walls and beams, and shall be cut 13 mm short of abutting walls.

3.7.4 Ceiling Openings

Support members shall be provided as required at ceiling openings for access panels, recessed light fixtures, and air supply or exhaust. Support members shall be not less than 38 mm main runner channels and vertically installed suspension wires or straps shall be located to provide at least the minimum support specified herein for furring and wallboard attachment. Intermediate structural members not a part of the structural system, shall be provided for attachment or suspension of support members.

3.7.5 Light Fixtures and Air Diffuser

Light fixtures and air diffusers shall be supported directly from suspended ceiling runners. Wires shall be provided at appropriate locations to carry the weight of recessed or surface mounted light fixtures and air diffusers.

3.8 PATCHING

Patch surface defects in gypsum board to a smooth, uniform appearance, ready to receive finish as specified.

-- End of Section --

SECTION 10260

WALL AND CORNER GUARDS
07/02

PART 1 GENERAL

Where components or finishes are required only in specific building/facility types within this project, their location shall be designated by the following abbreviations:

BRKS = Barracks Buildings
SCB = Soldier Community Building
BHQ = Battalion Headquarters Building
COF = Company Operations Facilities

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by thebasic designation only.

ALUMINUM ASSOCIATION (AA)

AA DAF-45	(1997) Designation System for Aluminum Finishes

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 167	(1999) Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
ASTM B 221	(2000) Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
ASTM D 256	(2000e1) Determining the IZOD Pendulum Impact Resistance of Plastics
ASTM D 543	(1995; R 2001) Evaluating the Resistence of Plastics to Chemical Reagents
ASTM D 635	(1998) Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position
ASTM E 84	(2001) Surface Burning Characteristics of Building Materials
ASTM G 21	(1996) Determining Resistence of Synthetic Polymeric Materials to Fungi

ASTM G 22 (1976; R 1996) Determining Resistance of Plastics to Bacteria

NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM)

NAAMM AMP 500 (1988) Metal Finishes Manual; Contains AMP 500, 501, 502, 503, 504, 505

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80 (1999) Fire Doors and Fire Windows

SOCIETY OF AUTOMOTIVE ENGINEERS INTERNATIONAL (SAE)

SAE J 1545 (1986) Instrumental Color Difference Measurement for Exterior Finishes, Textiles and Colored Trim

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. All items designated with a "G, RE", including product literature, calculations, component data, certificates, diagrams, drawings, and samples shall be submitted concurrently in one complete system submittal. Omission of any required submittal item from the package shall be sufficient cause for disapproval of the entire submittal. Unless otherwise indicated in the submittal review commentary, disapproval of any item within the package shall require a re-submittal of the entire system package, in which all deficiencies shall be corrected. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Corner Guards; G, RE
Wall Guards (Bumper Guards); G, RE

Drawings indicating locations and typical elevations of each type of item. Drawings shall show vertical and horizontal dimensions, full size sections, thickness of materials, and fastening details.

SD-03 Product Data

Corner Guards; G, RE
Wall Guards (Bumper Guards); G, RE

Manufacturer's descriptive data, catalog cuts, installation instructions, and recommended cleaning instructions.

SD-04 Samples

Finish; G, RE

Manufacturer's standard samples indicating color and texture of materials requiring color and finish selection.

SD-06 Test Reports

Corner Guards; G, RE
Wall Guards (Bumper Guards); G, RE

Fire rating and extinguishing test results for resilient material.

SD-07 Certificates

Corner Guards; G, RE
Wall Guards (Bumper Guards); G, RE

Statements attesting that the items comply with specified fire and safety code requirements.

1.3 DELIVERY AND STORAGE

Materials shall be delivered to the project site in manufacturer's original unopened containers with seals unbroken and labels and trademarks intact. Materials shall be kept dry, protected from weather and damage, and stored under cover. Materials shall be stored at approximately 21 degrees C for at least 48 hours prior to installation.

1.4 WARRANTY

Manufacturer's standard performance guarantees or warranties that extend beyond a 1 year period shall be provided.

PART 2 PRODUCTS

2.1 GENERAL

To the maximum extent possible, corner guards and wall guards (bumper guards) shall be the standard products of a single manufacturer and shall be furnished as detailed. Drawings show general configuration of products required, and items differing in minor details from those shown will be acceptable. Variances shall be highlighted by the Contractor. TEXT DELETED.

2.1.1 Resilient Material

Resilient material shall consist of high impact resistant extruded acrylic vinyl, polyvinyl chloride, or injection molded thermal plastic and shall conform to the following:

2.1.1.1 Minimum Impact Resistance

Minimum impact resistance shall be 960.8 N.m/m (18 ft. lb/sq. inch) when tested in accordance with ASTM D 256, (Izod impact, ft. lbs per sq inch notched).

2.1.1.2 Fire Rating

Fire rating shall be Class 1 when tested in accordance with ASTM E 84, having a maximum flame spread of 25 and a smoke developed rating of 450 or less. Material shall be rated self extinguishing when tested in accordance with ASTM D 635. Material shall be labeled and tested by an approved nationally known testing laboratory. Resilient material used for protection on fire rated doors and frames shall be listed by the testing laboratory performing the tests. Resilient material installed on fire rated wood/steel door and frame assemblies shall have been tested on similar type assemblies. Test results of material tested on any other combination of door/frame assembly will not be acceptable.

2.1.1.3 Aluminum Retainers

Retainers shall be fabricated from extruded aluminum alloy 6030-T6. Minimum strength and durability properties as specified in ASTM B221. Thickness shall be as indicated in this specification for each type of wall protection.

2.1.1.4 Wood Components

Wood components shall be constructed of solid, plain sawn, FAS Grade, kiln-dried, maple or beech hardwood, machined at a moisture content of 6 to 10 percent. Wood components shall be factory finished with a final coat of catalyzed, high solids, clear conversion coating. Finish shall custom match wood finish "WDF" as shown on the drawings.

2.1.1.5 Integral Color

Colored components shall have integral color and shall be matched in accordance with SAE J 1545 to within plus or minus 1.0 on the CIE-LCH scales.

2.1.1.6 Chemical and Stain Resistance

Materials shall be resistant to chemicals and stains reagents in accordance with ASTM D 543.

2.1.1.7 Fungal and Bacterial Resistance

Materials shall be resistant to fungi and bacteria in accordance with ASTM G 21 or ASTM G 22, as applicable.

2.2 CORNER GUARDS (CG)

2.2.1 Resilient Corner Guards

Corner guard units shall be surface mounted type, radius formed to profile shown. Mounting hardware, cushions, and base plates shall be furnished.

Assembly shall consist of a snap-on corner guard formed from high impact resistant vinyl/acrylic resilient material, minimum 1.98 mm thick, mounted on a continuous aluminum retainer. All corner guards shall have a face flange width of 50 mm. Factory fabricated end closure caps shall be furnished for top and bottom of surface mounted corner guards. Extruded aluminum retainer shall conform to ASTM B 221, alloy 6063, temper T5 or T6 and shall have a minimum thickness of 1.6 mm. Color and texture shall be as noted in the Interior Finish Materials Legend on the drawings.

2.2.1.1 Corner Guards for End Walls

Corner guard assemblies for end walls shall include typical assemblies as described above for each corner and include a vinyl sheet of the same color which covers the end wall surface and spans the distance between the corner guard edges. The corner guard assemblies shall be designed to overlap the vinyl sheet as detailed on the drawings.

2.3 WALL GUARD (WG)

Wall guards shall be provided with prefabricated end closure caps, mounting hardware and other accessories standard with the manufacturer for each model. Extruded aluminum retainers shall conform to ASTM B 221, alloy 6063, temper T5 or T6.

2.3.1 Wall Guard Type WG-1A {BRKS}& WG-1C {COF}

Wall guard shall consist of snap-on covers of high impact resistant resilient vinyl/acrylic material, minimum 1.98 mm thick, mounted over a continuous 152 mm wide aluminum, minimum 1.57 mm thick retainer, anchored to wall at maximum 400 mm on center. Profile shall be as shown on the drawings to include a 35 mm wide continuos horizontal accent acrovyn vinyl insert or equal. Wall guard ends shall be terminated with factory supplied end caps which match the wall guard dimensions, profile, and color. TEXT DELETED.

2.3.2 Wall Guard Type WG-2A {SCB}

Wall guard shall consist of a 95 mm wide milled and shaped hardwood trim component with a 51 mm acrylic bumper insert to match the profile and detail as shown on the drawings. Product may be a pre-fabricated standard product or custom product of a manufacturer, or provided as a custom millwork item in order to obtain the design and profile shown on the drawings. Wall guard ends shall be terminated with factory supplied end caps which match the wall guard dimensions, profile, and color. Inside and outside corners shall be field mitered. TEXT DELETED.

2.3.3 Wall Guard Type WG-1B {BHQ}

Wall guard shall be a factory finished 140 mm wide solid hardwood trim rail with a 19 mm wide vinyl bumper in profile and design as shown on the drawings. All ends shall be factory mitered. Product may be a pre-fabricated standard product or custom product of a manufacturer, or provided as a custom millwork item in order to obtain the design and profile shown on the drawings. TEXT DELETED.

2.3.4 Accent Rail Type AR {SCB}

Accent rails shall be wall mounted in continuous lengths as shown on the drawings. Rail assemblies shall consist of a continuous regrind vinyl retainer, a snap-on acrovyn high-impact extrusion cap, and matching pre-manufactured endcaps. Profile shall be a bullnose shape. Color shall be as indicated in the drawings.

2.3.4.1 Accent Rail Type AR-1A

Bullnose profile shall be 29 mm wide by 29 mm deep.

2.3.4.2 Accent Rail Type AR-2A

Bullnose profile shall be 51 mm wide by 25 mm deep.

2.4 TRIM, FASTENERS AND ANCHORS

Vinyl trim, fasteners and anchors shall be provided for each specific installation as shown. Fasteners shall be non-corrosive and compatible with the materials and substrate being fastened. Type shall be as recommended by the wall guard manufacturer.

2.5 FINISH AND COLOR

2.5.1 Resilient Material Finish

Finish for resilient material shall be embossed stipple texture with colors in accordance with SAE J 1545. Color for all components shall be as indicated in the Interior Finish Materials Legend on the drawings. Wood components shall have a factory finish comprised of two coats of catalyzed, high solids, clear conversion varnish with a minimum 3-5 mils thickness.

2.6 ADHESIVES

Adhesive for resilient material shall be in accordance with manufacturers recommendations.

PART 3 EXECUTION

3.1 PLACEMENT SCHEDULE

Locations for all corner guards and wall guards shall be as shown on the drawings.

3.2 CONSTRUCTION REQUIREMENTS AND COORDINATION

Walls to receive corner guards and wallguards shall include additional structural support in accordance with the manufacturer's recommendations at each installation location to provide secure mounting support for these items. All corner guards and wal guards shall be attached structural wall support. Attachment to gypsumboard wall substrate only is not allowed.

3.3 FABRICATION

All finished lengths shall be field measured and factory cut to length. Field cutting shall be minimized wherever possible. Pre-assemble coponents in the shop as much as possible to minimize field assembly.

3.4 INSTALLATION

3.4.1 Corner Guard (CG)

Material shall be mounted in accordance with manufacturer's recommendations. Corner guards shall extend from the top of the finished wall base to the finished ceiling. Where finished ceilings do not occur, corner guards shall extend from the top of the finished wall base to a length of 2400 mm.

3.4.2 Wall Guard (WG)

Wall guards shall be mounted at locations and heights indicated on the drawings. Wall guards shall be fastened to appropriate wall structural support utilizing continuous retainers, and mounting hardware as provided by the manufacturer. Wall guards shall be installed level, plumb, and straight. All wall guards shall terminate 25 mm from inside corners, door and window frame edges, and corner guards and as detailed on the drawings. All wall guards shall terminate within 25 mm from any wall-mounted equipment which interrupts the horizontal path of a wall guard.

3.4.2 Wood Component Matching

Manufacturer shall insure that abutting and adjoining wood rail component segments occurring during runs closely match in wood color finish and graining to achieve a continuity of appearance. Manufacturer shall assist the Contractor in selecting and obtaining only those components which meet this requirement. Manufacturer shall supply additional components as necessary for selection to meet this requirement and may incorporate a sequencing or numbering scheme to coordinate and achieve the required results. Visual inspection by the Government's Contract Representative may result in rejection and replacement of rail components which do not meet this requirement.

3.4.3 Accent Rails

Material shall be mounted in accordance with manufacturer's recommendations. Accent rails shall be fastened to appropriate wall structural support utilizing continuous retainers, and mounting hardware as provided by the manufacturer. Accent rails shall be installed level, plumb, and straight at heights and in locations as shown on the drawings. All accent rails shall terminate 25 mm from inside corners, door and window frame edges, and corner guards and as detailed on the drawings.

-- End of Section --